United Nations A/72/375

General Assembly

Distr.: General
6 September 2017

Original: English

Seventy-second session
Item 137 of the provisional agenda*
Proposed programme budget for the biennium 2018-2019

Proposal for the replacement of office blocks A-J at the United Nations Office at Nairobi

Report of the Secretary-General

Summary

The present report sets out a proposal to begin the implementation of the project to replace office blocks A-J at the United Nations Office at Nairobi, which was one of the near-term major construction projects identified in the report of the Secretary-General on the strategic capital review (A/70/697) and its preceding report (A/69/760).

The report provides a summary of the outcomes of the initial feasibility study, undertaken in the biennium 2016-2017, which included three options for implementing the project, intended to meet the global objectives for capital improvements as established under the strategic capital review.

Of the options studied, the Secretary-General recommends option 2, which entails the construction of a new rightsized building to replace blocks A-J and a comprehensive renovation of the remaining parts of the complex by employing flexible workplace strategies. This would meet the existing space needs of the United Nations Office at Nairobi, including its tenants, and the projected needs of the agencies, funds and programmes of the United Nations system currently housed outside the secure complex. The total project cost is estimated at $69,880,000 at current rates, inclusive of escalation and contingency, to be undertaken from 2018 to 2024, a project duration of seven years. In addition to being the most cost-effective option, option 2 would provide the added benefits of carrying the lowest risk and creating additional long-term efficiencies in energy consumption and space utilization.

It is recommended that the General Assembly approve the proposed scope, cost and implementation strategy of option 2, approve the establishment of four positions (1 P-4, 2 P-3 and 1 Local level) relating to the dedicated project management team and project support staff, appropriate an amount of $604,000 for the project for 2018 and approve the establishment of a multi-year construction-in-progress account for the project.

* A/72/150

17-14424 (E) 250917

Please recycle

I. Background

1. Nairobi became a United Nations headquarters duty station following the establishment of the United Nations Environment Programme (UNEP) in 1972, with its headquarters in Nairobi. Initially, UNEP was based in the Kenyatta International Conference Centre within the city centre, but in 1975 the Government donated a plot of 100 acres in Gigiri and the original seven office blocks (A-G) were built as temporary office accommodation for the UNEP secretariat. A map of the Gigiri complex is included in annex I to the present report.

2. These blocks, albeit later reinforced, are still being used as offices for agencies, funds and programmes of the United Nations system.

3. The United Nations Human Settlements Programme (UN-Habitat) was established in 1978 and joined UNEP at the Gigiri complex. The complex continued to grow, and the Government donated an additional two plots, increasing the total area to 140 acres. Between 1983 and 1985, a conference centre and six additional office blocks (M, N, P, R, S and T) were constructed to accommodate UNEP and UN-Habitat. In the early 1990s, an additional five office blocks (Q, U, V, W and X) were constructed. In 1996, the United Nations Office at Nairobi was created as a central administrative function, merging the administrative functions of both UNEP and UN-Habitat. The Office has responsibility for the maintenance and upkeep of the complex.

4. With the expansion of the Organization's presence in Nairobi, and to accommodate all funds, programmes and agencies of the United Nations system, a new office facility was constructed in 2009-2010. Its opening early in 2011 provided an additional 16,000 m^2 of net office space, thereby increasing space at the complex by nearly 60 per cent.

II. Assessment of the conditions of blocks A-J

5. The United Nations Office at Nairobi completed an assessment of the conditions of the buildings and infrastructure of the Gigiri complex in 2014, the findings of which were included in the report of the Secretary-General on the strategic capital review (A/70/697). It identified various upgrades that were required to the site-wide infrastructure and buildings, including to the road network, power, water and waste management, as well as upgrades and improvements to the conference facilities and the replacement of office blocks A-J.

6. Office blocks A-J were constructed in the late 1970s as semi-prefabricated buildings and were intended as temporary accommodation. They comprise office space, medical and security functions, warehousing, contractors' workshops, a canteen and other operational facilities. They are approaching the end of their design lives and, some interior upgrades over the years notwithstanding, do not comply with prevailing codes.

7. The blocks do not meet current United Nations security requirements. In addition, the roofs are sagging, portions of the fabric are suffering from prolonged exposure to damp and the wiring reticulation presents a risk of fire. The buildings are not universally accessible, have problematic floorplate geometry that precludes flexible furniture layouts and, owing to their structural properties, are at risk of severe damage in a seismic event. The strategic capital review determined that further investment in major maintenance of the buildings would in time cost more than their full replacement.

8. There are also numerous prefabricated timber buildings, originally constructed as swing space, but now serving as temporary office space. Temporary offices have been constructed above the east and west conference rooms and by partitioning off portions of the main concourse. There is significant pressure on the United Nations Office at Nairobi to provide office space for agencies wishing to move their operations to the Gigiri complex.

9. Table 1 indicates that blocks A-J and the prefabricated buildings have a remaining useful life of two years, as reflected in the 2016 year-end financial statements.

Table 1
Useful life of buildings as at the end of 2016
(Years)

	Useful life	*Expired useful life*	*Remaining useful life*
Blocks A-J	40	38	2
Prefabricated buildings	7	5	2

10. Blocks A-J currently provide office space to the security, facilities and medical services at the United Nations Office at Nairobi and to the United Nations Children's Fund, the United Nations Educational, Scientific and Cultural Organization and the World Food Programme. Some of these organizations have occupied space at the complex for several decades, and through their rental payments have contributed significantly to it. The Office has a duty of care to the agencies, funds and programmes that are paying commercial-level rent to ensure that the buildings are safe and fully comply with all required security, information technology and life-safety standards, as would be the case at any other global United Nations premises. The buildings do not currently comply with the standards and would potentially pose a serious risk in the event of a major seismic event. Were blocks A-J to be demolished with no option of replacement, the Office would not be able to provide secure office space to the agencies, funds and programmes currently hosted in those blocks, and more than $1 million in annual rental income to the Secretariat would be lost.

11. As detailed above, the Government made a significant donation of 140 acres of land in the mid-1970s, and, subsequently, Member States have made substantial investments in buildings, security and other infrastructure at the complex. In addition, the Government has made a significant investment in the Gigiri area, including major road upgrades, by introducing traffic light technology and slip lanes to reduce congestion and cycle/pedestrian lanes to improve safety, in support of all United Nations entities. In its resolution 44/211, the General Assembly called upon all organizations of the United Nations system, inter alia, to make the arrangements necessary for the implementation of the United Nations common house concept for establishing common premises at the country level. The United Nations Office at Nairobi has been working in line with this concept since early 2000, and the most recent construction project, that of the new office facility (completed in 2010), further established the Gigiri common premises.

12. Any new building proposed herein would be used as office space for the United Nations Office at Nairobi and would therefore be designed to fully support its secretariat functions, including the provision of purpose-built facilities and infrastructure required for security (primary security control room), information technology (primary data centre), upgraded medical facilities, catering, consolidated warehousing and transport and vehicle facilities that would include workshops,

maintenance and parking. Any proposed construction would include the full replacement of blocks A-J and all prefabricated offices, in addition to the replacement of all the facilities mentioned above. As detailed herein, any new building would be constructed taking into account flexible workspace strategies that would consolidate the current footprint of the Secretariat tenants, thereby allowing for extra office space to be made available to other United Nations tenants.

13. As approved by the General Assembly in the context of the programme budget for the biennium 2016-2017 (sect. 33, Construction, alteration, improvement and major maintenance), the United Nations Office at Nairobi initiated a feasibility study early in 2017 to consider the options for replacing blocks A-J. Explained herein are the outputs of the study, which include four proposed options.

14. The initial conditions assessment focused on the following areas: (a) industrial health and safety compliance; (b) seismic code compliance; (c) hazardous materials; (d) accessibility; (e) energy efficiency/sustainability; and (f) space utilization.

A. Industrial health and safety compliance

15. Over the past 40 years, the number of users of the Gigiri complex has increased and to provide them with space there has been periodic growth in the number of buildings. Some buildings were developed in the form of semi-prefabricated structures, some in the form of reinforced cement concrete framed structures and some as modern buildings. Owing to the temporary nature of the building blocks, the ageing of the buildings, the updating of standards and the technology for building structures, as well as safety, security and services requirements, the older buildings do not comply with current standards, not only in terms of their architecture, but also in terms of their compatibility with standard requirements for security, structure and electrical, plumbing and mechanical facilities.

16. **Meeting United Nations security requirements.** Stand-off distance, which is the distance from the secure perimeter (e.g., the fence) separating the public areas from the United Nations-owned buildings and other facilities, has become a standard means of security mitigation at United Nations premises. Located on the western periphery of the complex, blocks A-J are in the closest proximity to the compound perimeter and do not comply with United Nations security standards. The proposed replacement of the blocks has, as one of its primary considerations, the relocation of the buildings as far as possible away from these vulnerable perimeters, together with the creation of an effective and secure parking buffer zone on the periphery of the site to United Nations Avenue. Thanks to its new location and the composition and construction materials to be used, the replacement building would avoid the long-term need for major remedial measures to the most vulnerable current building structures necessary to improve their resistance in case of an attack.

17. **Electrical services.** Fire is the major risk facing the current electrical systems of blocks A-J, given that the electrical infrastructure was installed 40 years ago and does not satisfy current fire norms. Most of the electrical equipment lacks fire protection and electrical protection systems and is not located in well-ventilated areas, which is considered a potential fire and safety hazard. Much of the electrical infrastructure has been used beyond its recommended life and does not comply with the current ratings and standards. The emergency electrical systems are also not compliant with the standards of health and safety regulations at work.

18. **Mechanical services.** No heating, ventilation and air-conditioning equipment or lifts are provided in blocks A-J. In addition, the intended original design for

natural cross (passive) ventilation is not functioning adequately owing to the solid load-bearing walls located on either side of the central corridor.

19. **Plumbing facilities.** The plumbing fixtures installed in the washroom facilities are antiquated and inefficient and result in a significant waste of water. To meet current standards, there is a need to redesign the toilets and change all the sanitary fixtures to improve water efficiency, improve air movement and provide a more efficient exhaust system. Overall, the drainage structures, sewage systems, plumbing systems, piping systems and pressure control systems do not comply with the current prevailing local and international standards and require an upgrade.

20. **Fire safety.** The buildings are of a composite structure with steel columns and wooden trusses that are not protected with fire-resistant materials. In addition, there is no fire-resistant joint system designed to resist the passage of fire for a defined period.

B. Seismic code compliance

21. At the time of the construction of blocks A-J, the Kenyan code of practice for the design of buildings in relation to earthquakes was two years old and did not apply to buildings less than four storeys tall. Blocks A-J, whose form of construction is not robust, would not perform well in a seismic event in terms of life safety. Replacing the existing buildings, rather than retrofitting them, would be the most cost-effective way of meeting the current seismic design code of practice in Kenya.

C. Hazardous materials

22. An initial environmental review of the Gigiri complex carried out in 2007 indicated that materials potentially containing asbestos had been observed in the form of a gasket at the pipe installation at the old plant room, which serves blocks A-J. Although no other potential asbestos was identified during the review, in the light of the construction date of the blocks, it cannot be excluded that no other materials containing asbestos are present. Nevertheless, owing to the expected high costs of a more comprehensive study and the low risk of revealing additional asbestos, for the purposes of the feasibility study no additional costs were included.

D. Accessibility

23. Gaining access to the building from the outside parking area is difficult for people using wheelchairs. Most of the blocks stand alone, do not have convenient access from the central area, have limited ramped access and have no internal ramps or vertical circulation. Toilet facilities for persons with disabilities are available in a few blocks, but are not free of barriers and hence are not approachable with ease. Only block F has internationally recognized signage for toilets for persons with disabilities. Overall, those toilets do not comply with best practices for accessibility.

E. Energy efficiency/sustainability

24. Advanced environmental features were incorporated into the design of the new office facility completed in 2010 and similar or improved features are proposed for inclusion in the proposed new office buildings and service buildings. Some of the environmental features included in the new office facility were:

(a) Passive and natural ventilation, through the "chimney" effect of warm air rising through the landscaped atrium and in turn drawing cooler air into the offices;

(b) Natural light, maximized through the construction of light wells throughout the building (the central atrium, being covered in a translucent material, allows plenty of natural light into the landscaped area and the offices facing the atrium); a limited building depth of 10-12 m is recommended for natural daylight penetration in the interiors;

(c) Water recycling, through the collection of all rainwater from the roof, which is recycled for irrigation;

(d) Plumbing fixtures, selected in order to minimize the use of water, with a 3-6 litre flush capacity, compared with a traditional 12-15 litre flush capacity;

(e) Energy efficiency, through the installation of advanced fluorescent light fittings, with electric ballast that results in a 33 per cent energy saving compared with standard systems. As an additional project, UNEP also procured a photovoltaic system, which was installed on the roof.

25. Environmental efficiency features to be included in the proposed new buildings are: LED lighting technology with occupancy sensors, taking into account the best available current technology in this area; the installation of solar photovoltaic panels over the rooftops of the new office facilities and the parking areas for power generation (an energy-efficient system is vital in order to minimize the energy used by information technology equipment, given that such equipment can account for up to 40 per cent of the total energy consumption of a typical building; thus, energy improvements made possible by the use of water-cooled technology for the data centre, compared with current traditional cooling arrangements, are anticipated); the latest cabling technology and the latest equipment and technology for data and communications; the replacement of desktops with laptops, which would also reduce energy consumption considerably; the use of materials with low embodied energy as well as passive cooling and heating technology to be incorporated into the building design; plumbing fixtures in washrooms to be replaced with water-efficient fixtures; rainwater harvesting and sewage wastewater treatment systems to be implemented; and outdoor landscaping that uses selected evergreen local plants that require less watering.

F. Space utilization

26. In the preparation of the present report, the United Nations Office at Nairobi confirmed the current and expected office space requirements of all agencies, funds and programmes through a space survey issued in March 2017, in order to determine the current (March 2017) and estimated future (December 2021) space requirements for those agencies, funds and programmes that expressed interest in moving into or expanding their current office space at the complex.

27. For planning purposes for the feasibility study, the United Nations Office at Nairobi assumed that the current secretariat staffing levels would be maintained throughout the period of the study.

28. A summary of the existing portfolio of office space, divided by entity, is provided in table 2.

Table 2
Total current office space (gross external[a] and net rentable[b])
(Square metres)

	Gross external area				*Net rentable area*			
Building	*Headquarters entities*	*Other Secretariat entities*	*Agencies, funds and programmes*	*Total*	*Headquarters entities*	*Other Secretariat entities*	*Agencies, funds and programmes*	*Total*
Blocks A-J	1 285	–	8 478	9 763	650	–	5 549	6 199
Blocks M-U	2 573	5 389	10 004	17 967	1 834	4 185	7 958	13 977
Blocks V-X	6 613	714	73	7 400	3 883	1 102	49	5 034
New office facility	19 433	–	497	19 930	14 482	–	497	14 979
Prefabricated offices	445	445	2 449	3 339	430	430	2 365	3 225
Other	1 267	–	–	1 267	1 267	–	–	1 267
Total	**31 617**	**6 548**	**21 501**	**59 666**	**22 546**	**5 718**	**16 418**	**44 682**

Note: Headquarters entities include the United Nations Office at Nairobi, UNEP and UN-Habitat; other Secretariat entities include the United Nations Support Office in Somalia, the United Nations Assistance Mission in Somalia, the Monitoring Group on Somalia and Eritrea, the Special Envoy of the Secretary-General for the Great Lakes Region, the Office for the Coordination of Humanitarian Affairs and the United Nations Office on Drugs and Crime; gross not considered for "other" as office space within various large-scale multi-use conference facilities within the central area.

[a] Gross external area is the measurement of the area defined by the outside edges of the exterior walls of the building, inclusive of interior circulation and service cores.

[b] Net rentable area is the measurement of the interior usable area (also referred to as net internal area), exclusive of circulation and service cores.

29. A summary of the number of workstations available in 2017 and the projected workstation demand by 2022, when a new replacement building would become available, is provided in table 3.

Table 3
Current (2017) and future (2022) workstation requirements

	Current workstations (2017)				*Available workstations (2022)*		
						Flexible workplace capacity utilization[a]	
Building	*Headquarters entities*	*Other Secretariat entities*	*Non-Secretariat entities*	*Total*	*Current floor layouts*	*15 per cent increase*	*25 per cent increase*
Blocks A-J	45	–	590	635	–	–	–
Blocks M-U	105	373	622	1 100	1 100	1 300	1 452
Blocks V-X	311	127	–	438	438	535	595
New office facility	1 028	–	47	1 075	1 075	1 300	1 442
Prefabricated offices	33	33	182	248	–	–	–
Other	97	–	–	97	–	–	–
Total	**1 620**	**533**	**1 441**	**3 594**	**2 613**	**3 135**	**3 489**

	Projected demand (2022)		*Deficit (2022)*		
	Increase	*Total*	*Current floor layout*	*15 per cent increase*	*25 per cent increase*
Maximum	526	4 120	1 507	985	631
Minimum	356	3 950	1 337	815	461

Note: Headquarters entities include the United Nations Office at Nairobi, UNEP and UN-Habitat; other Secretariat entities include the United Nations Support Office in Somalia, the United Nations Assistance Mission in Somalia, the Monitoring Group on Somalia and Eritrea, the Special Envoy of the Secretary-General for the Great Lakes Region, the Office for the Coordination of Humanitarian Affairs and the United Nations Office on Drugs and Crime.

[a] Projected minimum and maximum ranges are used for planning purposes, based on the current stage of the change management process; the figures are roughly estimated on the basis of lessons learned from similar projects at Headquarters and the United Nations Office at Geneva.

30. Based on the outcome of the survey, the current requirement (as at 2017) for the existing tenants is 3,594 workstations. The estimated future requirement (2022) is between 3,950 and 4,120 workstations (i.e., 326-526 more workstations). However, the total deficit would be between 1,337 and 1,507 workstations when blocks A-J are also excluded from the calculations (which was the assumption, for planning purposes, by 2022), along with the prefabricated office structures. Assuming that the new building would employ a planning density of 14 m^2 of gross external space per workstation, following the proposed application of flexible workplace strategies, this would require a new office building of between 18,718 and 21,098 m^2.

Possible impact of ongoing business transformational initiatives

31. Given that the Organization is currently developing and implementing several business transformation initiatives, it is possible that the reforms may have an impact on future space requirements at the complex. Accordingly, the project proposal is aimed at providing the maximum level of future flexibility in configuration and capacity, as described in the options comparison included in section III. The rightsizing of any new construction, the ability to modify the total built area of the new construction in the future and the ability to make more efficient and more flexible use of the existing buildings are paramount to the success of the project in addressing future requirements. Foremost, however, are the current life-safety deficiencies in blocks A-J that must be addressed, irrespective of future developments at the complex.

Space utilization study

32. To better understand the true requirements of a new building, namely rightsizing, a space utilization study was carried out within the entire complex. Eleven typical floors were selected. The study focused on the occupancy patterns on those floors at three times of day for four weeks. It was observed that desk utilization averaged 44 per cent throughout the day, with occupancy being 33 per cent at the lower end of the range to 61 per cent at the higher end. This clearly indicates the potential to implement flexible workplace strategies and increase the occupancy density within the existing blocks in line with best practices. On the basis of guidelines for the flexible workplace strategies piloted at the Headquarters Building, possible flexible workspace floor plans were prepared for each typical floor type (new office facility and blocks M-U and V-X).

33. From the space utilization study, it is estimated that better utilization could be achieved in blocks M-U, V-X and the new office facility (some 2,610 workstations) if a fully flexible workplace environment were introduced. The potential increase in

utilization capacity based on table 3 would be between 3,135 and 3,490 workstations for those blocks. Nevertheless, given the estimated future requirements of between 3,950 and 4,120 workstations, there would still be a deficit of between 460 and 985 workstations in those buildings.

34. Even with the introduction of full flexible workplace strategies in all remaining blocks at the complex, a new office building would still be required by 2022 to address the deficit explained above. Assuming that the new building would also have an improved flexible workplace density of approximately 14 m^2 gross external space per person, this would require a new office building of between 6,450 and 13,790 m^2.

35. There are two major known challenges with regard to implementing flexible workplace strategies at the complex: (a) what may be termed "assumed ownership" of space by existing tenants, i.e., that the United Nations Office at Nairobi would be likely to face challenges by Secretariat tenants when applying flexible workplace strategies, including by setting target efficiency gains; and (b) the treatment of non-Secretariat tenants.

36. The first challenge means that, unless the issue of "assumed ownership" is resolved, increasing the density of occupancy may not create more available space for new tenants, as existing tenants may be able to simply maintain the space that they currently occupy. To address this, a clear flexible workplace policy would need to be developed and issued and any tenants renting space in an office complex managed by the Secretariat would be required to fully comply therewith.

37. The second challenge is that office space in the complex is rented to both Secretariat and non-Secretariat entities. The implementation of flexible workplace strategies requires investment by the tenant in information technology equipment and furniture. Given that the adoption of such strategies would not be compulsory for non-Secretariat entities, for planning purposes, the cost estimates presented are inclusive of fit-out costs for the information technology equipment and furniture component for Secretariat entities but exclusive of the same for non-Secretariat entities.

38. If non-Secretariat entities were to not apply flexible workplace strategies, it would be possible to introduce an improved occupancy density only in the new office facility building, which is fully occupied by Secretariat staff, and not in blocks M-U and V-X.

III. Options for the replacement of blocks A-J

39. To address the deficiencies highlighted in the conditions assessment, the following three options for the replacement of blocks A-J have been considered and reviewed in detail:

(a) Option 1: new large office buildings plus service buildings with refurbishment only;

(b) Option 2: new small office buildings plus service buildings with flexible workplace strategies;

(c) Option 3: rebuild on existing footprint with flexible workplace strategies.

40. In preparing the options, specific consideration was given to the recent deliberations of the General Assembly in relation to other capital construction projects, more specifically the report of the Advisory Committee on Administrative and Budgetary Questions on the construction of a new facility for the Arusha branch

of the International Residual Mechanism for Criminal Tribunals (A/71/812, para. 19, endorsed by the Assembly in its resolution 71/282) in which the Advisory Committee stressed the need for all future construction projects to incorporate clear baseline data and flexible workplace elements, where possible, from the outset.

A. Objectives for all options

41. The key objectives of overcoming the code compliance deficiencies in the existing buildings and the forecasted space deficiencies are in line with the key objectives outlined in the report of the Secretary-General on the strategic capital review (A/68/733). These are:

(a) To meet industry norms relating to health and safety issues, including fire and life safety planning and systems design, fire suppression, fire alarm and fire exit planning;

(b) To maintain the property value of United Nations premises, especially relating to building life-cycle replacement;

(c) To meet industry norms relative to facility preparedness and design against potential natural disasters and emergency situations, such as earthquakes, tsunami and hurricanes/typhoons;

(d) To ensure compliance with all relevant regulations relating to persons with disabilities, including provisions concerning accessibility and technology;

(e) To ensure that hazardous materials are removed from facilities;

(f) To improve space usage efficiency by maximizing the use of available office and meeting space and minimizing the size of building support spaces; this is to be achieved by optimizing the use of available interior spaces and meeting facilities, providing flexible and functional spaces;

(g) To modernize outdated major building systems, including mechanical, electrical, low-voltage electrical, plumbing and conveying and vertical transportation, in order to meet industry norms;

(h) To move towards more energy-efficient facilities, specifically by reducing energy consumption, freshwater consumption, the use of non-renewable material resources and waste generation, and improving atmospheric and indoor air quality;

(i) To keep disruption of the work of the United Nations to a minimum and to ensure business and operational continuity throughout any project implementation.

B. Comparison of options

42. The options have been reviewed in detail to determine both the qualitative (non-financial) and quantitative (financial) benefits and to understand which option offers the best value for money. In addition, a risk assessment has been conducted to identify risk mitigation strategies for each option.

43. In line with the business continuity objective indicated above, each option would provide for the replacement of blocks A-J with a minimum impact on ongoing operations and minimize the project costs through realistic and optimized design and construction schemes.

44. The purpose of the risk management analysis is to identify potential problems before they occur, so that risk-mitigation activities may be planned and invoked as needed across the life of each option, and to mitigate any adverse impacts on achieving the objectives and benefits of the project and those of the United Nations Office at Nairobi.

45. The cost estimates were developed in consultation with a third-party cost estimator and based largely on the most recent construction projects undertaken at the United Nations Office at Nairobi, foremost the new office facility. The escalation costs have been calculated on the basis of Kenyan inflation rates obtained from the Kenya National Bureau of Statistics. The average annual inflation rates were 7.10 per cent over the most recent 5-year period and 11.51 per cent over the most recent 10-year period. For the purpose of the cost calculations, an average annual escalation rate of 7.10 per cent was applied from 2017 onward for determining the total escalation rates of each option.

46. To compare the risks and benefits of each option, the United Nations Office at Nairobi conducted an initial risk analysis, which listed several key risks and benefits associated with each option and how each option might achieve the stated objectives (benefits) of the project. A cost comparison was also performed, although not directly linked to the risk analysis. An overview of the risks, benefits and costs in relation to each option is given in table 4.

Table 4
Risk, benefit and cost analysis matrix

	Option 1	*Option 2*	*Option 3*
Risks			
Business continuity	10	10	10
Project duration	5	10	10
Procurement procedure	10	5	5
Escalation	5	10	10
Currency fluctuations	1	10	10
Modernization of the working environment (flexible workplace strategies)	1	10	10
Rightsizing	1	10	10
Overall risk score	**33**	**65**	**65**
Benefits			
Qualitative			
Industrial health and safety compliance			
Overall planning and circulation	10	10	5
Meeting United Nations security requirements	10	10	10
Fire and electrical utilities/norms	10	10	5
Plumbing services and drainage systems	10	10	10
Resilience against potential natural disaster/seismic code and structure	10	10	10
Accessibility	10	10	5
Space utilization	5	10	10
Improvement of indoor air environment	10	10	5
Modernization of systems	10	10	10

	Option 1	*Option 2*	*Option 3*
Use of building materials with low embodied energy	10	10	10
Maintenance of biodiversity and green space	5	10	5
Functional improvement site-wide	10	10	5
Quantitative			
Reduction in energy consumption	10	10	5
Reduction in water consumption	10	10	10
Renewable energy resource	5	10	1
Swing space costs	5	1	1
Overall benefit score	**140**	**151**	**107**
Total	**173**	**216**	**172**
Costs			
Trade costs			
Building costs	43.843	35.693	36.288
Swing space costs	2.323	3.840	3.840
Sub-trade costs			
Consultancy costs	4.384	3.569	3.569
[illegible]	4.384	3.569	3.629
[illegible]	22.291	16.780	16.930
Project [illegible] cost	7.226	6.428	6.428
Total costs	**84.451**	**69.880**	**70.675**

Note: With regard to [illegible] ...tified as "low risk", 5 as "moderate risk" and 1 as "high risk". As to benefit [illegible] ...ted as "poor", 5 as "medium" and 10 as "good".

C. Swing space provisions applicable to each option

[illegible] ...ible swing space alternatives into which to temporarily move the ... have been considered for each option, including the construction of ... space within the complex, contracting commercial office space off site ... the costs to tenants to contract commercial office space off site. As a result of the synergies, funds and programmes at the complex need a notice ... over the option approved. The recommended option is a ... structures within the complex, which would allow business operations to continue and is the most cost-effective.

68. The cost of the swing space, along with moving costs for option 1, would amount to $2,320,000 for prefabricated structures on site or $3,270,000 for rented commercial office space off site. Given that the complex is the largest of the global United Nations complexes, at some 56 ha, there is ample space on which to build low-cost temporary structures. Accordingly, given that developing prefabricated swing space on site is the most cost-effective and otherwise least-disruptive alternative when compared with the other two options, the cost of setting up on-site ... space is used in the cost estimates.

69. Additional swing space would also be needed for options 2 and 3, given that flexible workplace strategies would be implemented concurrently with the construction to replace blocks A-J. In this regard, installing prefabricated swing space structures on site would cost up to $3,840,000, compared with $5,950,000 for

renting off-campus, commercial office space, including moving costs. It is therefore recommended that prefabricated swing space structures be used instead of renting commercial swing space, for the same reasons as cited for option 1.

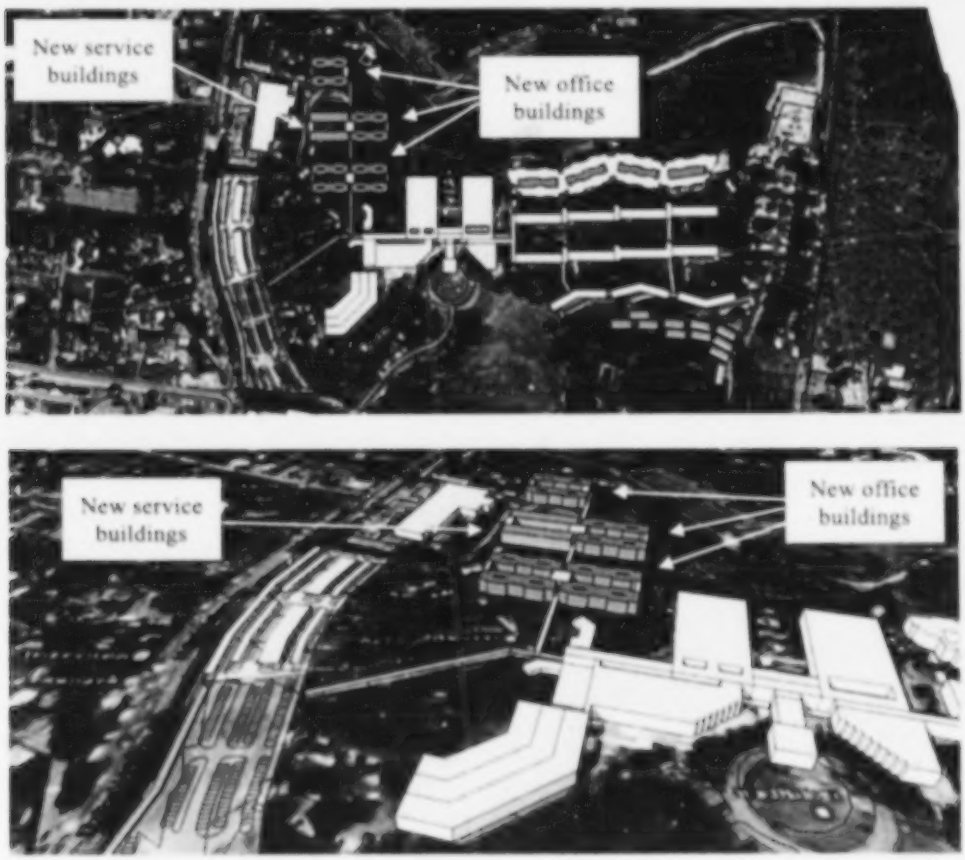
50. In all the options set out above, the forecasted time frame for implementing on-site swing space is eight months. Blocks A-J would be vacated and demolished in two phases, with critical business operations remaining in place until the completion of the new service building, thereby ensuring business continuity and keeping costs to a minimum.

Option 1: new large office building or buildings and service building

51. Option 1 would entail the replacement of blocks A-J with new large buildings on the same site. It would allow for single-phased construction efforts, which would involve moving out all existing tenants from the blocks into swing space. Four new three-storey double blocks (similar to the new office facility) would provide office space in the range of 18,700 to 21,100 m^2 for 1,340 to 1,510 workstations. The proposed location of the buildings under option 1 is shown in figure I.

Figure I

Architectural layouts for option 1, indicating the position of the new office buildings and service buildings



52. The total cost for option 1 is $84.451 million, as shown in table 5. The project schedule is shown in table 6.

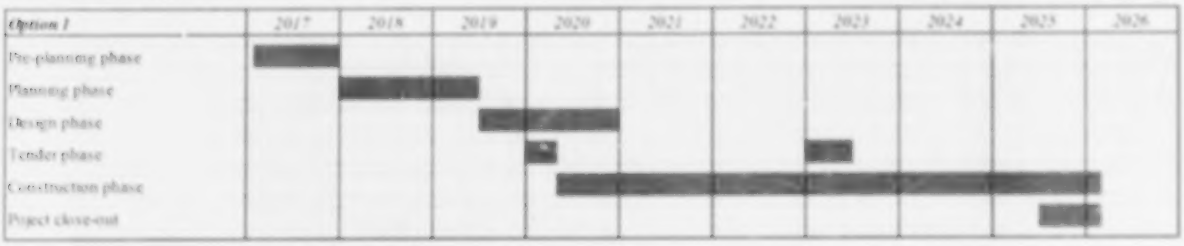
Table 5
Annual cost estimates for option 1

(Millions of United States dollars)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Trade costs												
Building costs	–	–	–	–	17.063	14.298	6.038	–	–	–	–	37.399
Interior refurbishment costs	–	–	–	–	–	–	–	2.165	3.969	0.311	–	6.444
Swing space costs	–	–	–	2.209	0.017	0.016	–	0.037	0.038	0.006	–	2.323
Sub-trade costs												
Consultancy costs	–	–	1.122	1.496	0.312	0.312	0.569	0.445	0.097	0.032	–	4.384
Contingencies	–	–	–	–	1.706	1.430	0.604	0.217	0.397	0.031	–	4.384
Escalation	–	–	0.163	0.834	5.936	6.463	3.611	1.735	3.232	0.318	–	22.291
Subtotal	**–**	**–**	**1.285**	**4.539**	**25.033**	**22.518**	**10.821**	**4.598**	**7.732**	**0.698**	**–**	**77.226**
Project management costs	0.266	0.863	0.878	1.083	1.108	1.135	1.096	0.581	0.216	–	–	7.226
Total	**0.266**	**2.148**	**5.417**	**26.116**	**23.626**	**11.956**	**5.694**	**8.313**	**0.915**	**–**	**–**	**84.451**

Note: The costs shown above include information technology hardware and furniture costing for flexible workplace strategies for Secretariat entities in new buildings only.

Table 6
Schedule for option 1



53. Option 1 does not include flexible workplace strategies for the existing office space in blocks M-U, blocks V-X and the new office facility; however, to provide a fair comparison of the benefits of the three options, it does include improvements that would extend the useful lives of the office buildings across the complex for at least 20 years without any need for further major capital investment, for example improvements to the existing building service cores. This option does not, however, include the benefit of applying flexible workplace strategies in the existing blocks.

Option 2: new small office buildings and service building with flexible workplace strategies

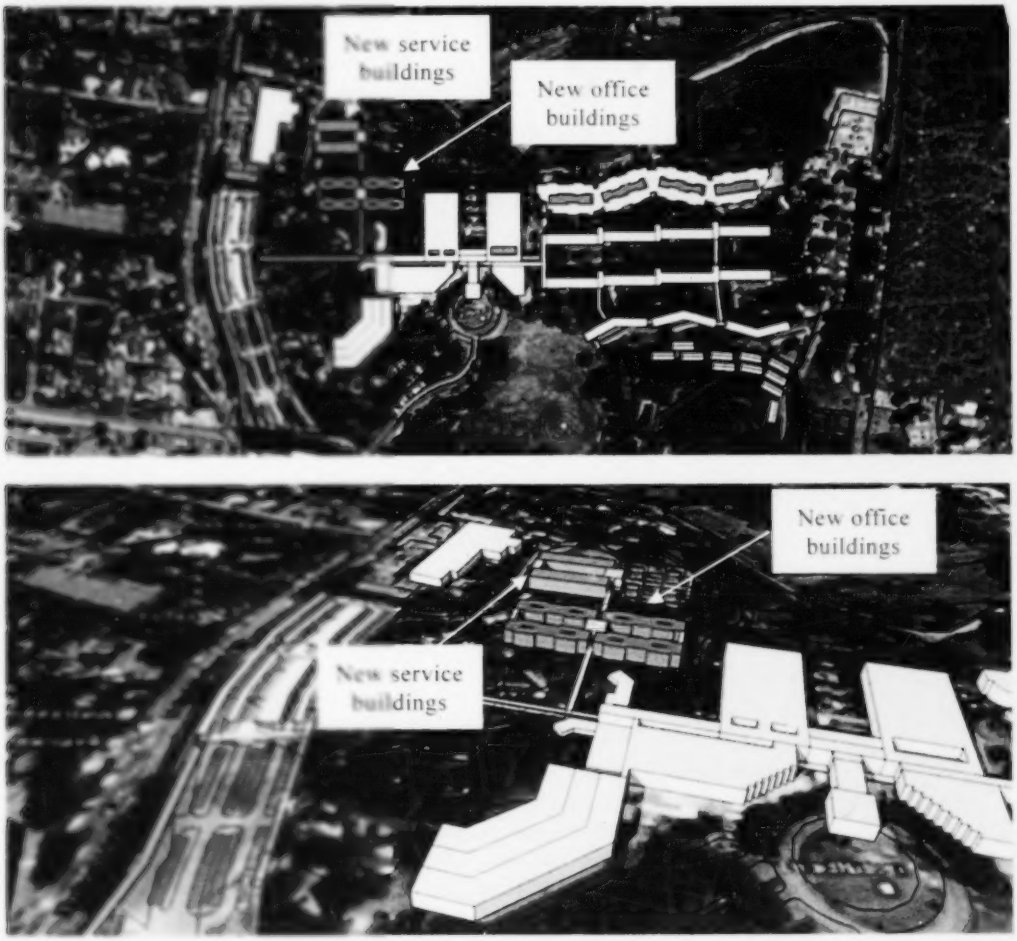
54. Based on the knowledge gained from the space utilization study, a more effective use of space could be achieved in blocks M-U, V-X and the new office facility by applying flexible workplace strategies. As shown in table 3 above, the number of workstations available would decrease from 3,594 currently in use to 2,613 by 2022, given that blocks A-J, the prefabricated offices and some other office units would no longer be fit for purpose and use.

55. Depending on the flexible workplace strategy chosen, the number of staff accommodated could be increased by an amount in the range of 3,135 to 3,489

within the remaining offices, however, given the estimated future demand to accommodate between 3,950 and 4,120 staff, there would still be a complex-wide need for additional capacity of 461 to 985 staff by 2022, which could be addressed by establishing a new office space in the range of 6,454 to 13,790 m^2. The position of the proposed office and service buildings, not on the same spot as blocks A-J, is indicated in figure II.

Figure II

Architectural layouts for option 2, indicating the position of the new office buildings and service buildings



56. A phased approach by floor would be applied to implement flexible workplace strategies for block V by 2019, adding approximate additional capacity for 8 to 14 staff on each floor. Flexible workplace strategies for the remaining blocks would be applied between 2021 and 2023, adding additional capacity for 700 to 900 staff.

57. Currently, blocks B, C, E and I accommodate a total of 350 staff, who would be moved by the end of 2019 into space released after the first flexible workplace implementation and into temporary, prefabricated offices used as swing space.

58. The total costs for option 2 are $69.880 million, as shown in table 7. The project schedule is shown in table 8.

Table 7
Costs for option 2

(Millions of United States dollars)

	2018	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*Total*
Trade costs										
Building costs	–	–	–	16.722	2.489	5.933	–	–	–	25.143
Flexible workplace refurbishment costs	–	0.228	–	2.320	2.667	5.335	–	–	–	10.550
Swing space costs	–	–	3.730	0.055	0.032	0.023	–	–	–	3.840
Sub-trade costs	–	–	–	–	–	–	–	–	–	–
Consultancy costs	0.316	1.176	1.085	0.289	0.289	0.289	0.126	–	–	3.569
Contingencies	–	0.023	–	1.904	0.516	1.127	–	–	–	3.569
Escalation	0.022	0.207	1.084	6.617	2.412	6.362	0.076	–	–	16.780
Subtotal	**0.338**	**1.634**	**5.899**	**27.906**	**8.406**	**19.067**	**0.202**	**–**	**–**	**63.451**
Project management costs	0.266	0.863	0.878	1.083	1.108	1.135	1.096	–	–	6.428
Total	**0.604**	**2.497**	**6.777**	**28.989**	**9.514**	**20.202**	**1.297**	**–**	**–**	**69.880**

Note: The costs shown above include information technology hardware and furniture costing for flexible workplace strategies for Secretariat entities only.

Table 8
Schedule for option 2

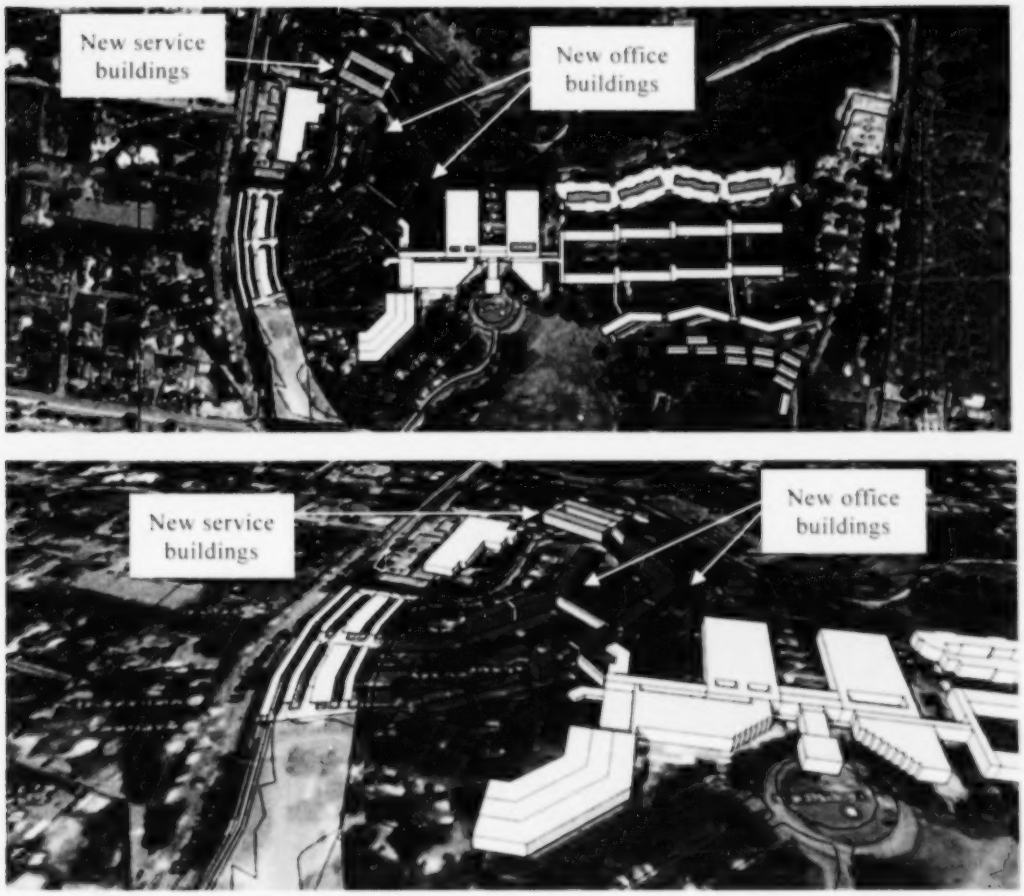
Option 2	*2017*	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*
Pre-planning phase										
Planning phase										
Design phase/ tender phase										
Moves/ construction phase										
Poject close-out										

Option 3: rebuild on the existing footprint with flexible workplace strategies

59. Option 3 considers rebuilding a new office space on the footprint of some of blocks A-J. This, however, would reduce some of the benefits that would accrue from a new development in terms of energy efficiency and sustainability, as the overall north/south building orientation would lead to reduced energy efficiencies as a result of solar heat gain. In addition, this option would not allow for an optimal circulation of staff or utilization of space, as there would be no central atrium, and the middle floors would need to continue to be used as "through traffic" corridors for the entire area. The positioning of the new buildings under option 3 is shown in figure III.

Figure III

Architectural layouts for option 3, indicating the position of the new office buildings and service buildings



60. The total costs for option 3 are $70.675 million, as shown in table 9. The project schedule is shown in table 10.

Table 9

Costs for option 3

(Millions of United States dollars)

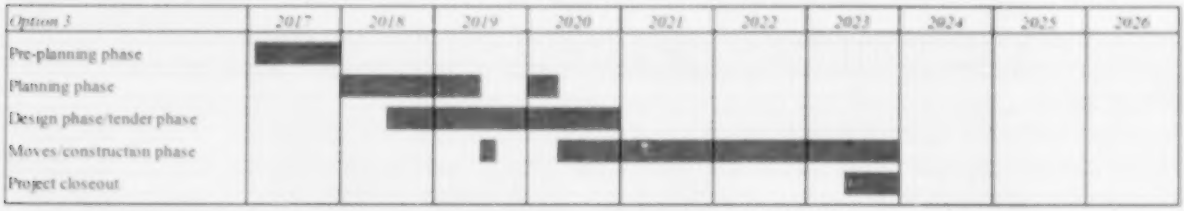
	2018	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*Total*
Trade costs										
Building costs	–	–	–	15.312	6.810	3.616	–	–	–	25.738
Flexible workplace refurbishment costs	–	0.228	–	2.320	2.667	5.335	–	–	–	10.550
Swing space costs	–	–	3.730	0.058	0.032	0.023	–	–	–	3.843
Sub-trade costs	–	–	–	–	–	–	–	–	–	–
Consultancy costs	0.316	1.194	1.109	0.222	0.294	0.294	0.129	–	–	3.557
Contingencies	–	0.023	–	1.763	0.948	0.895	–	–	–	3.629
Escalation	0.022	0.209	1.089	6.115	4.328	5.089	0.078	–	–	16.930

	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Subtotal	**0.338**	**1.654**	**5.928**	**25.789**	**15.079**	**15.251**	**0.207**	**–**	**–**	**64.246**
Project management costs	0.266	0.863	0.878	1.083	1.108	1.135	1.096	–	–	6.428
Total	**0.604**	**2.517**	**6.806**	**26.872**	**16.187**	**16.386**	**1.302**	**–**	**–**	**70.675**

Note: The costs shown above include information technology hardware and furniture costing for flexible workplace strategies for secretariat entities only.

60 The total costs for option 3 are $70.675 million, as shown in table 9. The project schedule is shown in table 10.

Table 10
Project schedule for option 3



Conclusions

61. The feasibility study revealed that option 2 was the most viable and desirable option for replacing blocks A-J and offered the highest benefits. With expected project costs totalling $69,880,000, this is the least expensive of the three options. Options 2 and 3 achieve the best score of 65 with regard to their inherent implementation risks. However, option 2 also obtains the single best score of 216 with regard to the expected benefits and addresses in the most cost-effective manner issues regarding sustainable building performance, energy efficiency, the efficient use of office space and replacing building systems that will have reached the end of their useful lives.

IV. Project governance

A. Project owner and oversight

62. The project governance structure has been included in annex II. It shows the project owner as the Director-General of the United Nations Office at Nairobi. The Director of the Division of Administration would serve as the project executive, who would be responsible for managing the dedicated project management team, interacting with internal and external stakeholders and dealing with strategic issues requiring senior-level decision-making. The Director may elect to delegate the role, as appropriate. The day-to-day project execution would be under the leadership of a dedicated project manager. The proposed project governance and management structures set out in annex II are based on the generic structure contained in the guidelines for the management of construction projects issued by the Office of Central Support Services in January 2016, which were modified for this project. The salient features of the governance structure are the following:

(a) Well-defined coordination and support on the various aspects of the project between the Office of Central Support Services at Headquarters and the

United Nations Office at Nairobi to facilitate the sharing of knowledge and provide alerts and take early remedial action should issues arise;

(b) Early establishment of a dedicated project management team and support functions with clear reporting lines;

(c) Establishment of a stakeholder committee to assist the United Nations Office at Nairobi Director-General, Director of Administration and central support services chief to manage the project proactively;

(d) Establishment of a change management and corporate support group to serve as, among other things, a forum for active engagement on all aspects relating to supporting the implementation of flexible workplace strategies at the complex, including communications, staff outreach and engagement;

(e) Inclusion of an independent risk-management framework early in the project development process.

63. The stakeholder committee would be led by the United Nations Office at Nairobi Director-General (delegated to the Director of Administration) as Chair and the central support services chief as Executive Secretary, and would provide the Director-General with advice and guidance with regard to the operational aspects of the project. The committee is an advisory body for the project owner and would not be able to make changes that would affect the project scope, schedule or cost. The committee would draw its members from the Office and other secretariat offices headquartered within the complex, such as UNEP and UN-Habitat.

64. The members of the stakeholder committee from the United Nations Office at Nairobi would include the central support services, the Information and Communications Technology Services, the Security and Safety Service and the Division of Conference Services. Membership from other Secretariat offices would include the Office of Central Support Services, the Office of Information and Communications Technology and the Department of Safety and Security at Headquarters. Advice and input from other stakeholders, such as the Department of Field Support, that are also located at the complex would be sought, if required. In addition, external stakeholders, such as the Ministry of Foreign Affairs of Kenya, would be updated periodically on the project. The committee would be informed about the details of the project at key milestones with regard to its scope, schedule and cost.

65. The members of the change management and corporate support group from the United Nations Office at Nairobi would include the Chief of the Facilities Management Service, the Chief of the Procurement Section, representatives of the Budget and Finance Section, the Information and Communications Technology Services, the Human Resources Management Section, the Joint Medical Services and the Division of Conference Services. The active representation and involvement of the Nairobi Staff Union early in the project development and throughout the project implementation process would be sought. This forum would be responsible for, among other things, communications and a review of flexible workplace strategies guidelines, including on information technology infrastructure, furniture and training requirements. In this regard, advice and input from the Office of Central Support Services, the Office of Information and Communications Technology and the Office of Human Resources Management at Headquarters would also be sought.

66. The Secretary-General is also mindful of the recommendation of the Advisory Committee on Administrative and Budgetary Questions, with regard to other capital projects being undertaken by the Organization, that the establishment of an advisory board for the project should be considered. While still under consideration, the

Secretary-General wishes to draw a distinction between the proposed project, the programme requirements which are relatively straightforward (the replacement of existing office blocks and the renovation of existing blocks), and larger projects for which advisory boards have been established that entail more complex scopes comprising multiple-use spaces (conference rooms, technical rooms, commercial areas and office space). As such, the Secretary-General is currently not inclined to establish an advisory board for this project, but stands ready to receive additional guidance from the General Assembly on the matter.

B. Role of the Office of Central Support Services

67. The Office of Central Support Services, as indicated in the Secretary-General's bulletin on the organization of the Office (ST/SGB/2013/1), provides support and coordination to offices away from Headquarters and regional commissions in the management of their properties and construction projects. In line with General Assembly resolution 70/248 A, section XII, paragraph 11, the role of the Office in the project has been established and is included in the overall governance structure (see annex II).

68. The Office of Central Support Services exercises overall project oversight, provides the United Nations Office at Nairobi with technical guidance and advice on the project, ensures that the project will comply with overall organizational objectives, for example those set out in the strategic capital review, shares lessons learned from other capital projects undertaken by the Organization and coordinates with New York-based project stakeholders across Secretariat departments and governing bodies.

69. In addition, and in consideration of the guidance received from the General Assembly in its resolution 70/248 A, section IX, paragraph 13, on the renovation of the Africa Hall at the Economic Commission for Africa and the recommendation of the Advisory Committee on Administrative and Budgetary Questions in its report on the seismic mitigation retrofit and life-cycle replacements project at the Economic and Social Commission for Asia and the Pacific premises in Bangkok (A/70/7/Add.3, paras. 22 and 27), endorsed by the General Assembly, the Office of Central Support Services would take a leading role in providing independent risk-management services for both projects. To that effect, the Office is procuring the services of a specialist risk-management firm to assist in providing the Organization with expert services, including a quantitative risk assessment. Such services would be managed centrally by the Office in New York, and funded on a per-project basis as a part of the project cost plans.

C. Dedicated project team

70. As indicated in the lessons learned from the other capital projects of the Secretariat (see A/69/760), having a dedicated project management team of an adequate size that begins work early in the planning stage of the project and works continuously until project completion is essential to ensuring the success of a capital project of such size. The proposed team would be composed of a project manager, project team staff, project support staff, independent and integrated risk-management service providers and external specialized consultants. The team working on site would have the same member composition in number and functions for all three options, but for a different duration, in accordance with the timeline for project implementation.

United Nations Office at Nairobi project team

71. The team would be led by a Project Manager at the P-5 level. That level would accurately reflect the required levels of expertise and responsibility of the role, as well as the appropriate reporting lines within the corporate governance structure. The project team would then comprise one Structural/Civil Engineer (P-3), who would be responsible for, among other things, integrated risk management and the initial part of the project when the design and major structural works are carried out, and one Project Administrative Assistant (Local level), as well as one Services/Mechanical-Electrical-Plumbing Engineer (National Professional Officer), one Logistics and Coordination Officer (National Professional Officer) and one Clerk of Works (Local level) for construction supervision.

United Nations Office at Nairobi project support

72. The project support team would include a Space Planner and Coordinator (P-4) and a dedicated Procurement Officer (P-3).

73. A chart depicting the project governance structure is contained in annex II to the present report.

Consultancy services

74. External to the United Nations, but within the dedicated project management team, the services of consultants, contractors and suppliers would be required. Given the specialized nature of the project, external consultancies for the provision of architectural, engineering and construction management would be needed to produce the detailed design and technical documentation for tender and oversight of the construction works. These services would be managed and coordinated by the lead architectural and engineering firm. Required specialized services would also include architectural and interior consultancy services for office space design and space planning relating to the implementation of the flexible workplace strategies and change management components of the project. Whereas the role of the dedicated project management team would be to coordinate and oversee the works on behalf of the United Nations, the external consultants would, among other things, be responsible for producing the actual detailed design and construction documents for the procurement of construction and fit-out services, providing technical and contract administration and oversight during the actual construction and fit-out works and specifically relating to flexible workplace works, producing and coordinating office space design and programming, and producing floor layouts and any material and documentation required for communication, staff outreach and engagement.

Independent risk management

75. To implement a robust integrated approach to risk management in line with industry best practices, it is proposed that an independent risk-management firm be included as part of this project, similar to those services incorporated into the governance of other substantial capital projects undertaken by the United Nations. The risk-management framework would include the development and use of a risk register and a risk-based approach to the establishment and management of the contingency provision.

76. To that end, the independent risk-management firm would report directly to the Office of Central Support Services in New York to provide an independent assessment of the course of the project actions, provide expertise to the project,

assist in identifying and mitigating any risks that may have an impact on the successful delivery of the project and support informed decision-making.

77. The dedicated project management team, including its consultants, would be responsible for integrating risk management as part of the regular/ongoing project management process.

Host country arrangements

78. The host country has provided for significant support arrangements for the United Nations operations in Kenya and specifically for the offices at Gigiri. In addition to the generous donations of land by the Government outlined in section I above, a host country agreement was established in March 1975 that provides for privileges and immunities, including duty exemption for contracts and material importations for both entitled staff and official purposes such as construction materials, equipment and infrastructure. These benefits would be extended to any construction project, leading to reduced overall costs and expedited importation arrangements through the established host country liaison arrangements.

V. Next steps

79. Upon approval by the General Assembly of the project, the following activities would be undertaken in 2018 and 2019:

(a) Recruit the initial dedicated team in 2018, consisting of one Space Planner (P-4), one Structural/Civil Engineer (P-3), one Procurement Officer (P-3) and one Administrative Assistant (Local level);

(b) Establish the stakeholder committee and a change management and corporate support group and make other administrative arrangements;

(c) Tender for specialized architectural consultancy services for office space design, space planning and change management services relating to the implementation of flexible workplace strategies in 2018;

(d) Tender for architectural consultancy services for the design of the new scalable office building and service building in 2018;

(e) Conduct a flexible workplace pilot across one floor of block V in 2019 and refine the overall cost estimate for the project following the outcomes of the pilot;

(f) Develop options for the use of current and additional projected rental income in the financing scheme of the project, with the aim of reducing assessments on Member States;

(g) Prepare for swing space construction in 2019;

(h) Coordinate with the host country regarding the host country arrangements.

VI. Project costs and resource requirements for the biennium 2018-2019

80. The Secretary-General recommends approval of option 2, with the initial design for flexible workplace strategies in existing blocks (M-U, V-X and the new office facility), as well as the construction of new scalable office buildings and service buildings. A flexible workplace pilot across one floor would be completed in 2019, with flexible workplace strategies implemented across the remaining floors of

the existing blocks (M-U, V-X and the new office facility) in 2021-2023, at a construction cost of $10.55 million. The construction of a new scalable office building (one block) and service building is scheduled in 2021-2022, at a construction cost of $19.21 million, with a second block to be constructed in 2023, with a construction cost of $5.93 million. The total cost of option 2 would amount to $69.88 million. Of this amount, the requirements for 2018 are shown in table 11.

Table 11
Resource requirements, by budget section, for 2018 under option 2
(Thousands of United States dollars)

Section 29H, United Nations Office at Nairobi	
Project management	266
Subtotal, section 29H	**266**
Section 33, Construction, alteration, improvement and major maintenance	
Consultants	316
Contingencies	–
Escalation	22
Subtotal, section 33	**338**
Total	**604**

VII. Recommended actions to be taken by the General Assembly

81. **It is recommended that the General Assembly:**

(a) **Approve the proposed scope, cost and implementation strategy of option 2 for the replacement of office blocks A-J;**

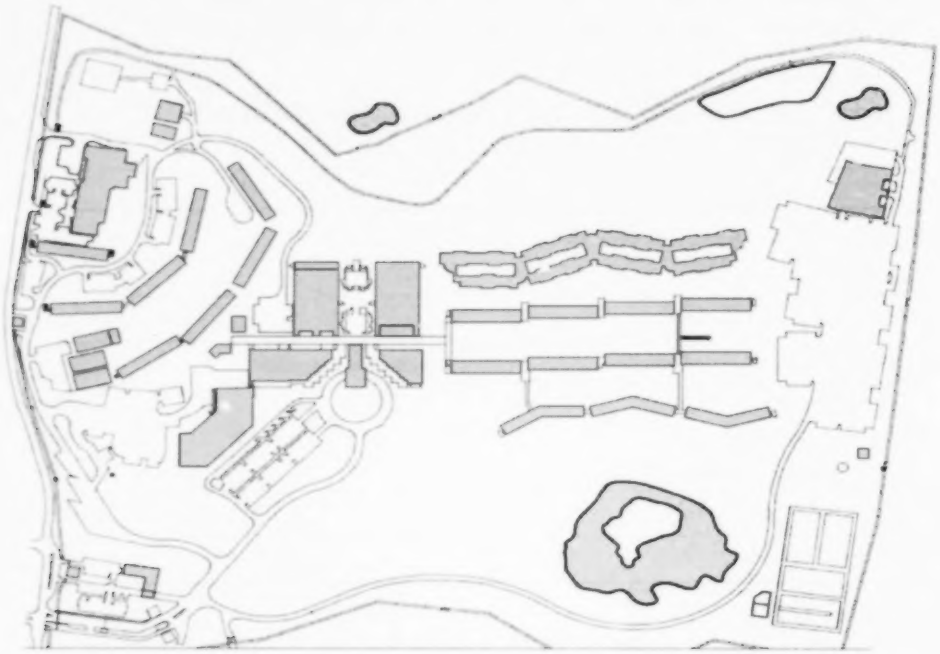
(b) **Approve the establishment of four positions (1 P-4, 2 P-3 and 1 Local level) relating to the dedicated project management team and project support staff, under section 29H, United Nations Office at Nairobi, as from 1 January 2018;**

(c) **Appropriate an amount of $604,000 for the project for 2018, comprising $266,000 under section 29H, United Nations Office at Nairobi, and $338,000 under section 33, Construction, alteration, improvement and major maintenance, of the proposed programme budget for the biennium 2018-2019, which would represent a charge against the contingency fund;**

(d) **Approve the establishment of a multi-year construction-in-progress account for the project.**

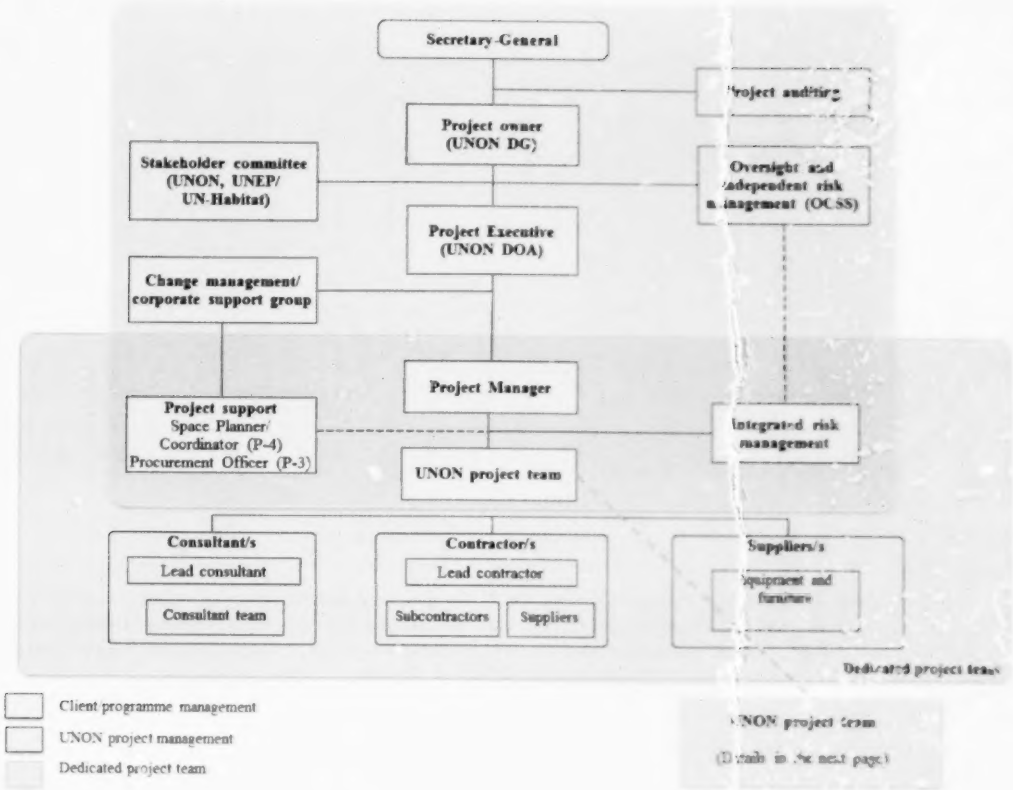
Annex I

Map of the United Nations Office at Nairobi complex

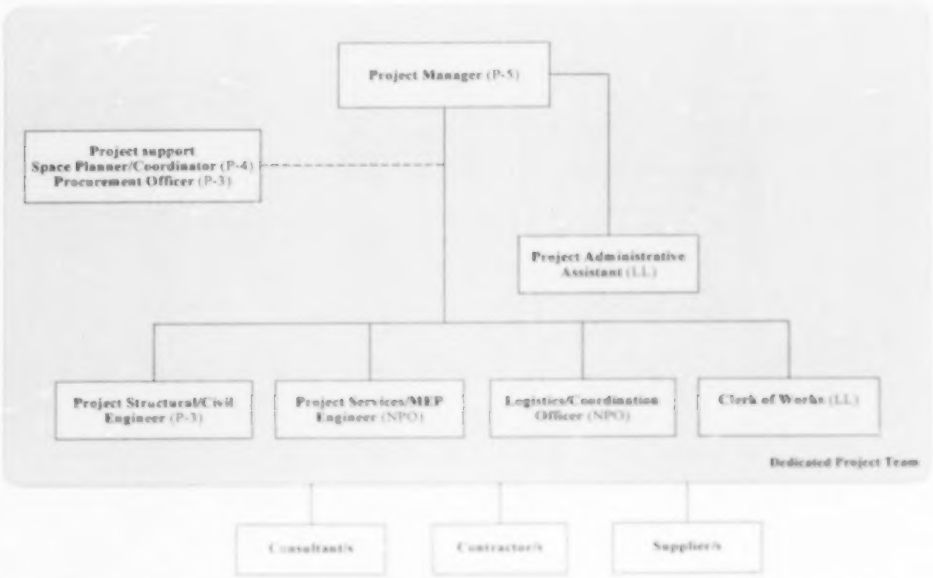


Annex II

Project governance structure



Composition of the United Nations Office at Nairobi project team



Abbreviations: DG, Director-General; DOA, Director of Administration; LL, Local level; MEP, Mechanical, Electrical and Plumbing; NPO, National Professional Officer; OCSS, Office of Central Support Services; UNEP, United Nations Environment Programme; UN-Habitat, United Nations Human Settlements Programme; UNON, United Nations Office at Nairobi.

Annex III

Detailed cost plans for each option

(Millions of United States dollars)

Option 1	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*Total*
Trade costs										
Building costs	–	–	–	17.063	14.298	6.038	–	–	–	37.399
Interior refurbishment costs	–	–	–	–	–	–	2.165	3.969	0.311	6.444
Swing space costs	–	–	2.209	0.017	0.016	–	0.037	0.038	0.006	2.323
Sub-trade costs	–	–	–	–	–	–	–	–	–	–
Consultancy costs	–	1.122	1.496	0.312	0.312	0.569	0.445	0.097	0.032	4.384
Contingencies	–	–	–	1.706	1.430	0.604	0.217	0.397	0.031	4.384
Escalation	–	0.163	0.834	5.936	6.462	3.611	1.735	3.232	0.318	22.291
Subtotal	**–**	**1.285**	**4.539**	**25.033**	**22.518**	**10.821**	**4.598**	**7.732**	**0.698**	**77.226**
Project management costs	0.266	0.863	0.878	1.083	1.108	1.135	1.096	0.581	0.216	7.226
Total	**0.266**	**2.148**	**5.417**	**26.116**	**23.626**	**11.956**	**5.694**	**8.313**	**0.915**	**84.451**

Option 2	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*Total*
Trade costs										
Building costs	–	–	–	16.722	2.489	5.933	–	–	–	25.143
Flexible workplace refurbishment costs	–	0.228	–	2.320	2.667	5.335	–	–	–	10.550
Swing space costs	–	–	3.730	0.055	0.032	0.023	–	–	–	3.840
Sub-trade costs	–	–	–	–	–	–	–	–	–	–
Consultancy costs	0.316	1.176	1.085	0.289	0.289	0.289	0.126	–	–	3.569
Contingencies	–	0.023	–	1.904	0.516	1.127	–	–	–	3.569
Escalation	0.022	0.207	1.084	6.617	2.412	6.362	0.076	–	–	16.780
Subtotal	**0.338**	**1.634**	**5.899**	**27.906**	**8.406**	**19.067**	**0.202**	**–**	**–**	**63.451**
Project management costs	0.266	0.863	0.878	1.083	1.108	1.135	1.096	–	–	6.428
Total	**0.604**	**2.497**	**6.777**	**28.989**	**9.514**	**20.202**	**1.297**	**–**	**–**	**69.880**

Option 3	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*Total*
Trade costs										
Building costs	–	–	–	15.312	6.810	3.616	–	–	–	25.738
Flexible workplace refurbishment costs	–	0.228	–	2.320	2.667	5.335	–	–	–	10.550
Swing space costs	–	–	3.730	0.058	0.032	0.023	–	–	–	3.843

Option 3	*2019*	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*Total*
Sub-trade costs	–	–	–	–	–	–	–	–	–	–
Consultancy costs	0.316	1.194	1.109	0.222	0.294	0.294	0.129	–	–	3.557
Contingencies	–	0.023	–	1.763	0.948	0.895	–	–	–	3.629
Escalation	0.022	0.209	1.059	6.115	4.328	5.089	0.078	–	–	16.930
Subtotal	**0.338**	**1.654**	**5.928**	**25.789**	**15.079**	**15.251**	**0.207**	**–**	**–**	**64.246**
Project management costs	0.266	0.863	0.878	1.083	1.108	1.135	1.096	–	–	6.428
Total	**0.604**	**2.517**	**6.806**	**26.872**	**16.187**	**16.386**	**1.302**	**–**	**–**	**70.675**